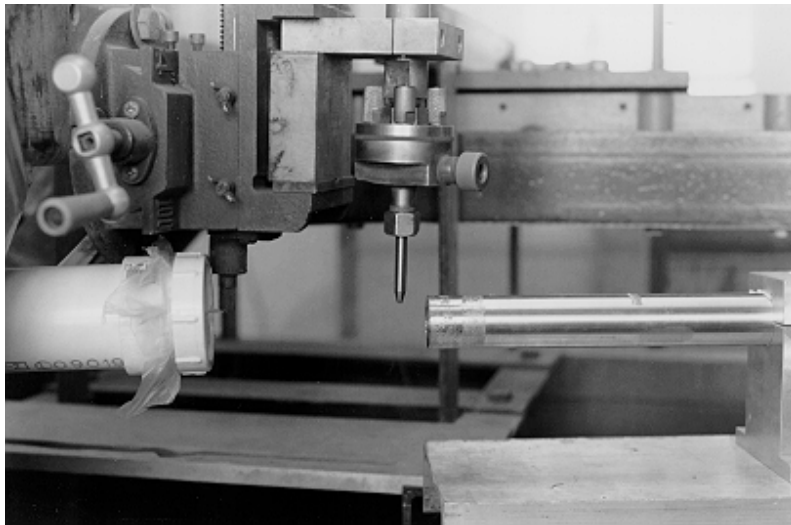


## **Water knife: Garnet and Water Recycling**

A prototype has been developed by the Environmental Management Office, the Fabrication Shop, and a CSU international student. This prototype recycles garnet and water used for cutting metal in the operation of the Fabrication Shop's water knife.

A fine-point nozzle shoots fine grains of garnet mixed with water at sheets of metal. This firing of garnet and water acts as a cutting tool, slicing into the metal. Garnet is a precious mineral, and recapturing it for reuse saves money and resources, plus the environmental impact of mining those resources. Recycling the water also saves money and resources – water and the energy and resources used in processing the water in a treatment plant.

Final adjustments are being made to the system. This recycling water knife system may also be used on other water knife systems around GRC and at other centers.



<http://www.mce.uri.edu/labs/waterjet/>